cells about as long as broad, terminating in articulate hairs or ovoid-elliptic cells; sporangia terminal, clavate, 11–12 × 16–21 μ; color green. Greenland.

This species indicates the connection between *Pilinia* and *Chaetophora;* instead of an extended layer it forms roundish gelatinous thalli, forming, with *Calothrix* species, etc., a continuous stratum near high water mark. In 1884 the writer reported[1] its occurrence at Kennebunkport, Maine, but it has not since been seen, and subsequent examination of the material in question failed to show it, so that the report is now unconfirmed by any specimen. There is no reason, however, why it should not be found on the Maine coast, in company with other arctic forms.

Malden, Massachusetts.

Explanation of Plate 77.

Fig. 1. *Pilinia Lunatiae*, portion of basal layer.
Fig. 2. " " two erect filaments with branches.
Fig. 3. " " filament with emptied sporangium.
Fig. 4. *P. Morsei,* section of basal layer with cells longitudinally divided, and two erect filaments.
Fig. 5. *P. Morsei,* basal layer more developed, with long and short filaments and new and old sporangia.
Fig. 6. *P. Morsei,* successive sporangia on short filament.

Achillea tomentosa at Westford, Massachusetts.— Between 1884 and 1888 I found at Westford, a striking yellow-flowered species of yarrow, since identified as *Achillea tomentosa* L., a native of southern and central Europe. It was in a field with other plants, introduced through the generous use of wool waste as a fertilizer. Some of the *Achillea* was transplanted to a private garden, where it still persists after twenty years, though in the field where it originally grew it has disappeared. As now applied the wool waste is kept until it decomposes sufficiently to kill the weed seeds it so often contains — a procedure more favorable to good agriculture than productive of botanical rarities.— Emily F. Fletcher, Westford, Massachusetts.

[1] Bull. Torrey Bot. Club, Vol. XI, p. 130.